

Work Order ID 160237

Tuesday, April 25, 2017 8:14:04 AM

160237

Page 1

Item ID: D5359-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Strut Assembly, LH/RH
Start Date: 4/25/2017 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 4/26/2017 Req'd Qty: 2.00 ***2*** Customer:
Reference: SCHEDULED/U
Approvals: Process Plan:  Date: APR 24 2017 Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D5359	B								

110

0.00

110

Small Fab

Memo

2.27

Small Fab

1- CUT SQUARE TUBING AT 48.00"

DAS
19
9-89

APR 25 2017

112

0.00

112

CNC Bend 1

Memo

0.04

CNC Delta 100 Bender

1- FORM TUBING AS PER DWG USING DT10300 USING CNC BENDER
100 AND FOLIO 32 BEND PROG D5359.Z O JW
17-04-22

114

0.00

114

Small Fab

Memo

0.04

Small Fab

1- TRIM OFF EXTRA MATERIAL USING DT10300

2- DEBURR

DAS
19
9-89

APR 25 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 160237

Tuesday, April 25, 2017 8:14:04 AM

160237

Page 2

Item ID: D5359-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Strut Assembly, LH/RH
Start Date: 4/25/2017 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 4/26/2017 Req'd Qty: 2.00 ***2*** Customer:
Reference: SCHEDULED/U

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
120									
QC	Memo	0.02							
Quality Control									
130		0.00							
130									
Mill Conv	Memo	1.90							J.C.-L. 17-04-18
Conventional Milling Machine	1- DRILL HOLES IN BOTH ENDS OF TUBE AS PER DWG								
	2- DEBURR								
140	QC2- Inspect parts off machine FAI/FAIB	0.00							
140									J.C.-L. 17-04-18
QC	Memo	0.04							
Quality Control									

APR 25 2017

Pto

DQA:

Date: 2017-07-10

DART
AEROSPACE

QA Closed:

Date:

JUL 04 2017

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only

Work Order: 160 237		DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No. D5359-1		Rework		Skid-tube		Cross tube		Water Jet		Engineering	
NCR No. 17-6511		Scrap	☒	Machining	☒	Small Fab		Prod. Eng. Coord.		Quality	
		Use-as-is		Thermoforming		Finishing		Rec/Store/Packaging		Other	
		Suspected Unapproved		Large Fab		Composite		Supplier			
Date: 17-04-25	Step #: 13	QTY Effective: 1				MRB (QSI042) Approval					
Description Work Order Deviation		Disposition						DAS 9 9-89 17-05-17			
The Ø 0.194 Hole is supposed to be at 2.005 is now at 2.105, forgot to compensated for edge finder.		Scrap / destroy no replace						Completed By J.C.L. 17-04-25			
RC operator								Lead hand / Supervisor Approval Verification DAS 9 9-89 17-05-17			
								QC / QA Coordinator Approval DAS 9 9-89 17-05-17			
Root Cause			FAULT CATEGORY								
Environment		No Re-verification		Pressure/Forced		Temperature/Cure		Power Loss/Surge		Positioned Wrong	
Design		Operator	☒	Bending		Set-up		Folio/Program		Outside Dimensions	
Doc/Data		Offset/Setup		Centre Not Concentric		BOM/Route		Grain		Over/Under tolerance	
Equip/Tooling		Supplier		Cracks		Broken/Damage/Defect		Weld		Part Incorrect	
Handling/Pre		Training		Crimp/Kink/Ripple/Wave		Inspection Incomplete/Unqualified		Wrong Stock Pulled		Part Lost/Missing	
Material		Use for Testing		Cuffs		Contamination		Out of Sequence		Part Moved	
Internal Transport		Poor Information		Crushing		Countersink		Off-set		Drawing	
Tribal Knowledge		Rushing	☒	Heat Treat		Cut Too Short		Mislabeled		Finish	
LOA		Product Improvement		Wave/Twist in Tube		Instructions Incomplete/Unclear		Fit/Function		Misread	
Substation		Process Improvement		Marks/Chatter		Drill Holes	☒	Misaligned/off center		Turning Sequence	
Past Expiry Date		Manufacturing Process									
Misidentified		Past Due		OTHER :							

160237

Tuesday, April 25, 2017 8:14:04 AM

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 4/25/2017 **Start Qty:** 2.00 ***2***

Cust Item ID:

Required Date: 4/26/2017 Req'd Qty: 2.00 *~*

Customer:

Reference: SCHEDULED/U

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------------	---------------	------------------	----------------

0.00

150

QC

Memo

0.04

Quality Control

DAS
20
9-89 17-04-25
P.T.O.

White Gloss(Ref:4.3.5.2) per OSI005 4.3 Steel

0.00

160

Powdercoat

Powder Coating

Memo

0.59

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

QC3- Inspect Part Finish

0.00

170

QC

Quality Control

Memo

0.04

DAS
30
9-89

APR 25 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Work Order ID 160237

Tuesday, April 25, 2017 8:14:04 AM

160237

Page 4

Item ID: D5359-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Strut Assembly, LH/RH
 Start Date: 4/25/2017 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 4/26/2017 Req'd Qty: 2.00 ***2*** Customer:
 Reference: SCHEDULED/U

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180		0.00							
180									
Small Fab	Memo	2.25							
Small Fab	1- ASSEMBLE INSERT IN TUBE AS PER DWG ***DO NOT INSTALL CLEVIS***								
190		0.00							
190									
Mill Conv	Memo	1.09							
Conventional Milling Machine	1- DRILL WITNESS HOLES TRUE BOTH WALLSW AS PER DWG, SHEET 2, DETAIL A AND VIEW B-B 2- DEBURR								
200	QC5- Inspect part completeness to step on W/O	0.00							
200									
QC	Memo	0.04							
Quality Control									

1 0 17-4-25 DAS 19 9-89

1 0 17-04-25 DAS 32 9-89

1 0 APR 26 2017 DAS 38 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 160237

Tuesday, April 25, 2017 8:14:04 AM

160237

Page 6

Item ID: D5359-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Strut Assembly, LH/RH
Start Date: 4/25/2017 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 4/26/2017 Req'd Qty: 2.00 ***2*** Customer:
Reference: SCHEDULED/U

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC21- Final Inspection - Work Order Release	0.00							
240									
QC	Memo	0.20							
Quality Control									

17/4/27

DAS
21
9-89

APR 26 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause		FAULT CATEGORY					
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____	

Picklist Print

Tuesday, April 25, 2017 8:14:04 AM

Page 1

Work Order ID: 160237

160237

Parent Item: D5359-041

D5359-041

Parent Item Name: Strut Assembly, LH/RH

Start Date: 4/25/2017

Required Date: 4/26/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev: A RQ 16.03.23 Verified by: DD
17.01.20 AS PER REV.B DD VERF:JLM

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2690-6		Manufactured	No			210	Each	31.0000	2	4			DAS 19 9-89
D2690-6									**			APR 26 2017	

Lanyard

Location	Loc Qty	Loc Code
ST009	31	
159061	31	

M304TS0.750W.049

Purchased

No

110

f

475.2810

3.334

6.668

APR 26 2017

M304TS0 750W 049

304 SQ Tube .75x.75x.049W

Location	Loc Qty	Loc Code
WA004	475.281	
M136907	289.281	
M137172	186	

D5359-3

Manufactured

No

180

Each

8.0000

2

4

APR 26 2017

D5359-3

Insert

Location	Loc Qty	Loc Code
ST165	8	
157111	8	

D5359-5

Manufactured

No

210

Each

6.0000

1

2

APR 26 2017

D5359-5

Clevis, Aircraft End

Location	Loc Qty	Loc Code
GA	6	
157112	6	

1

DAS
19
9-89

16 feet TW 17-04-22

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐
Handling/Pre ☐	☐	Training ☐	☐	Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐
Material ☐	☐	Use for Testing ☐	☐	Cuffs ☐	☐	Contamination ☐	☐
Internal Transport ☐	☐	Poor Information ☐	☐	Crushing ☐	☐	Countersink ☐	☐
Tribal Knowledge ☐	☐	Rushing ☐	☐	Heat Treat ☐	☐	Cut Too Short ☐	☐
LOA ☐	☐	Product Improvement ☐	☐	Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐
Substation ☐	☐	Process Improvement ☐	☐	Marks/Chatter ☐	☐	Drill Holes ☐	☐
Past Expiry Date ☐	☐	Manufacturing Process ☐	☐	OTHER : _____			
Misidentified ☐	☐	Past Due ☐	☐				

Picklist Print

Tuesday, April 25, 2017 8:14:04 AM

Page 2

Work Order ID: 160237

160237

Parent Item: D5359-041

D5359-041

Parent Item Name: Strut Assembly, LH/RH

Start Date: 4/25/2017

Required Date: 4/26/2017

Start Qty: 2.00

Required Qty: 2.00

D5359-7 Manufactured No

210 Each 4.0000 1 2

D5359-7

Clevis, Basket End

**

APR 26 2017

DAS
19
9-89

Location

Loc Qty

Loc Code

GA

4

157113

4

①

AN3CH11A Purchased No

180 Each 6.0000 2 4

AN3CH11A

Bolt (Drilled Head)

**

APR 26 2017

DAS
19
9-89

Location

Loc Qty

Loc Code

GA

6

m136863

6

②

AN3CH12A Purchased No

180 Each 2.0000 2 4

AN3CH12A

Bolt (Drilled Head)

**

APR 26 2017

DAS
19
9-89

Location

Loc Qty

Loc Code

GA

2

m136685

2

②

MS17984-C405 Purchased No

210 Each 4.0000 1 2

MS17984-C405

Pin, Quick Release

**

APR 26 2017

DAS
19
9-89

Location

Loc Qty

Loc Code

ST315

4

157876

4

①

MS17984-C608 Purchased No

210 Each 6.0000 1 2

MS17984-C608

Pin, Quick Release

**

APR 26 2017

DAS
19
9-89

Location

Loc Qty

Loc Code

ST314

6

m137099

6

①

Tuesday, April 25, 2017 8:14:04 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Tuesday, April 25, 2017 8:14:04 AM

Page 3

Work Order ID: 160237

160237

Parent Item: D5359-041

D5359-041

Parent Item Name: Strut Assembly, LH/RH

Start Date: 4/25/2017

Required Date: 4/26/2017

Start Qty: 2.00

Required Qty: 2.00

MS21043-3 Purchased No 180 Each 644.0000 4 8
MS21043-3 ** APR 26 2017 DAS 19 9-89
Nut

Location	Loc Qty	Loc Code
FG	80	
103691	80	
FP001	203	
m130673	11	
m136182	192	
GA	215	
m133990	27	
m136182	188	
ST302	77	
m136986	77	
ST304	69	
m131340	69	

NAS1149C0363R Purchased No 180 Each 291.0000 10 20
NAS1149C0363R ** APR 26 2017 DAS 19 9-89
Washer

Location	Loc Qty	Loc Code
FP001	109	
m133077	109	
GA	46	
m133077	46	
ST266	136	
m136983	136	

Tuesday, April 25, 2017 8:14:04 AM

Shop Packet Print

Page 3

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐						OTHER : ☐	

Picklist Print

Tuesday, April 25, 2017 8:14:04 AM

Work Order ID: 160237

160237

Parent Item: D5359-041

D5359-041

Parent Item Name: Strut Assembly, LH/RH

Start Date: 4/25/2017

Required Date: 4/26/2017

Start Qty: 2.00

Required Qty: 2.00

NAS509-6C

Purchased

No

210

Each

19.0000

2

4

DAS

NAS509-6C

APR 26 2017

**19
8-89**

Nut

Location

Loc Qty

Loc Code

ST551

19

M128429

10

M129913

9

②

DQA: _____ Date: _____



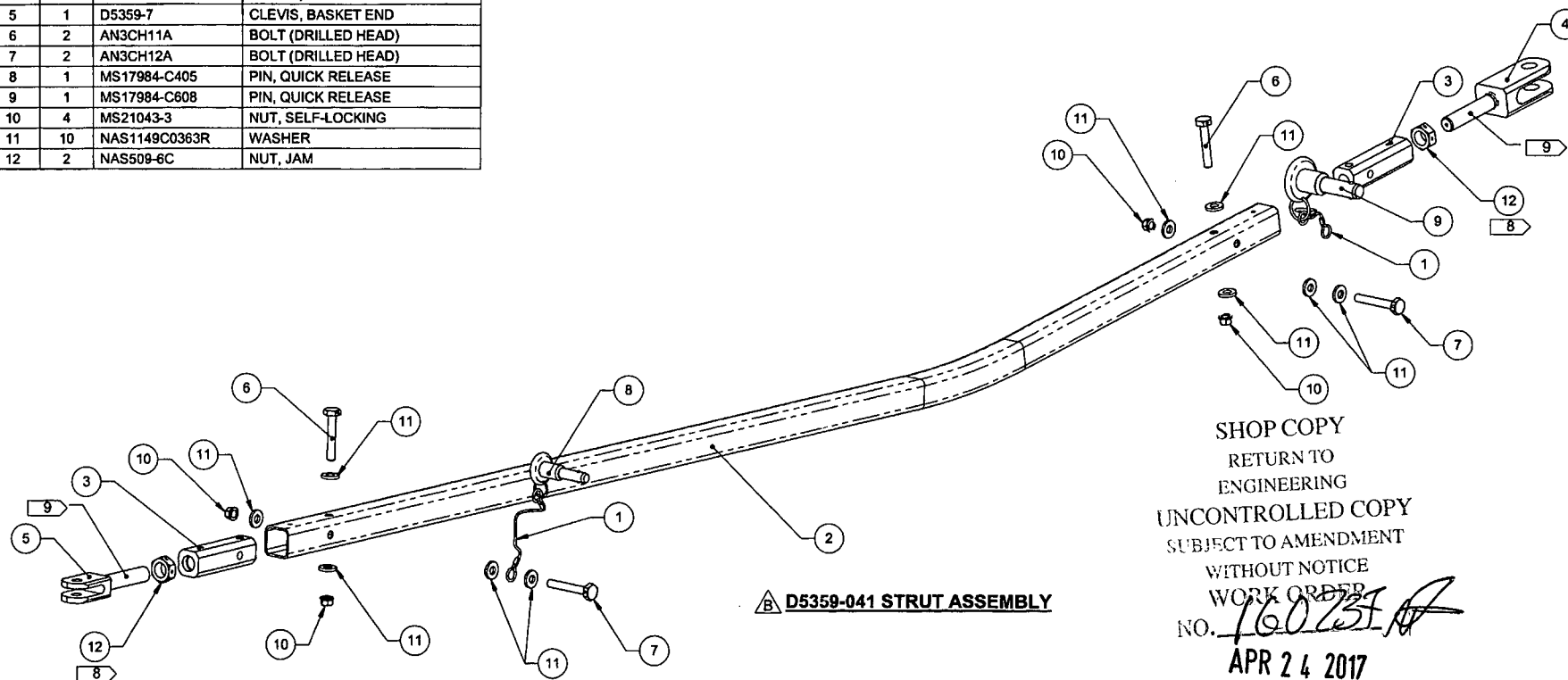
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									

ITEM	QTY -041	P/N	DESCRIPTION
	X	D5359-041	STRUT ASSEMBLY
1	2	D2690-6	LANYARD ASSEMBLY
2	1	D5359-1	STRUT
3	2	D5359-3	INSERT
4	1	D5359-5	CLEVIS, AIRCRAFT END
5	1	D5359-7	CLEVIS, BASKET END
6	2	AN3CH11A	BOLT (DRILLED HEAD)
7	2	AN3CH12A	BOLT (DRILLED HEAD)
8	1	MS17984-C405	PIN, QUICK RELEASE
9	1	MS17984-C608	PIN, QUICK RELEASE
10	4	MS21043-3	NUT, SELF-LOCKING
11	10	NAS1149C0363R	WASHER
12	2	NAS509-6C	NUT, JAM



D5359-041 STRUT ASSEMBLY

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *160731*
APR 24 2017

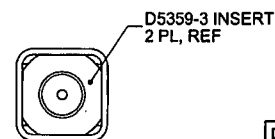
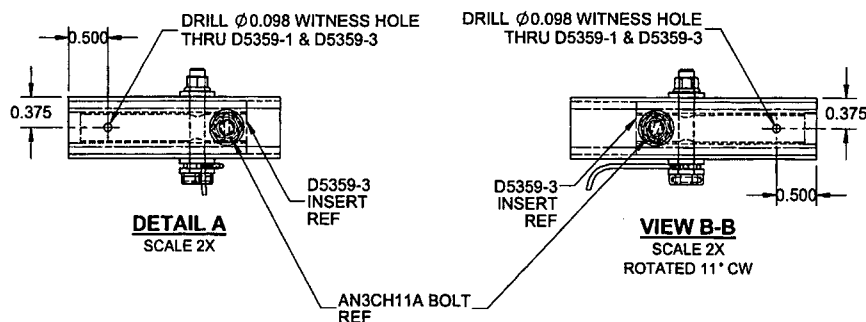
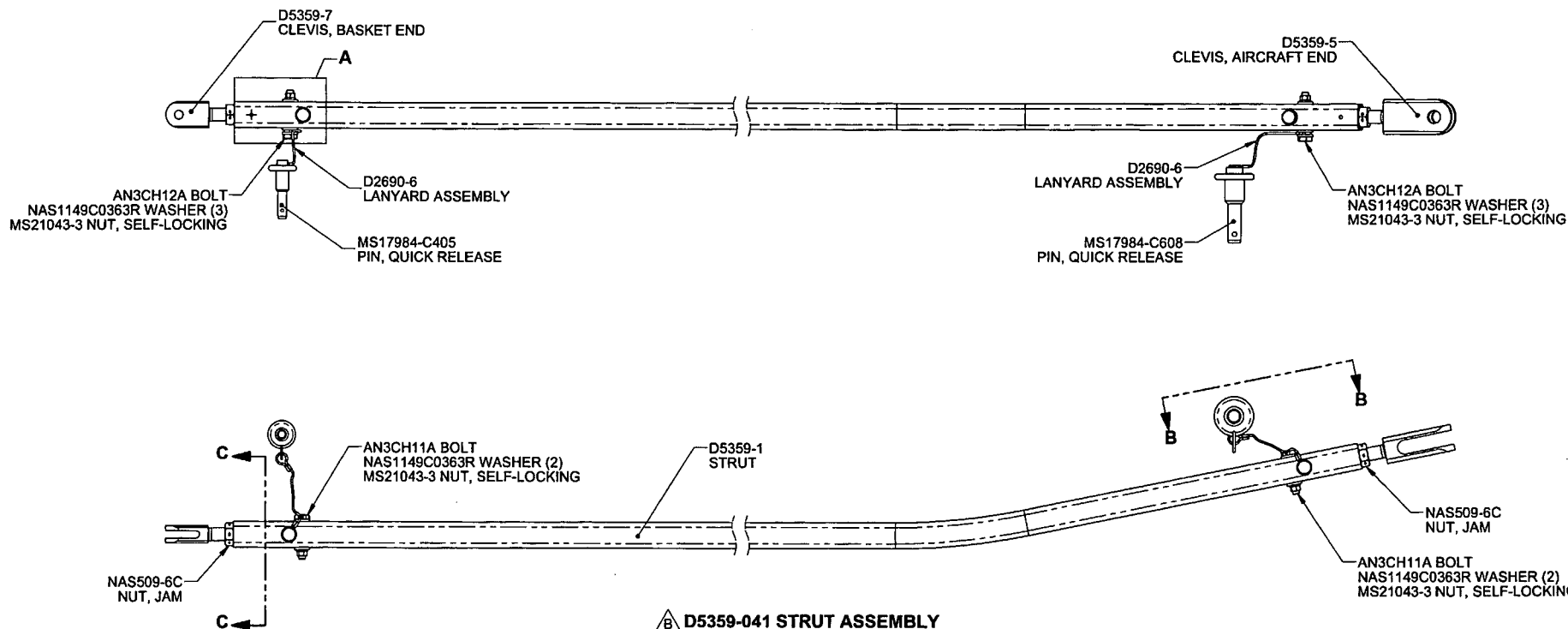
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 6.1
- 7) WEIGHT: 2.48 lbs
- 8) HAND TIGHTEN NAS509-6C NUT
- 9) USE TECTYL 502C CLASS I, MIL-PRF-16173E GRADE 2 OR EQUIVALENT ANTI-SEIZE COMPOUND ON THREAD

RELEASED
2017-02-10
EW17-508
522 en

APPROVED

B	REDESIGNED TO BE COMPATIBLE WITH BOTH LH + RH INSTALLATIONS. -042 DELETED.	AJS	16.12.12
A	NEW ISSUE	VS	15.11.23
REV.	DESCRIPTION	BY	DATE
DESIGN	VS		
DRAWN	NO		
CHECKED	AJS		
MFG. APPR.	DD		
APPROVED	WM		
DE APPR.	DS		
DATE	16.12.12		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D5359 TITLE STRUT ASSEMBLY REV. B SHEET 1 OF 4 SCALE NTS COPYRIGHT © 2015 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

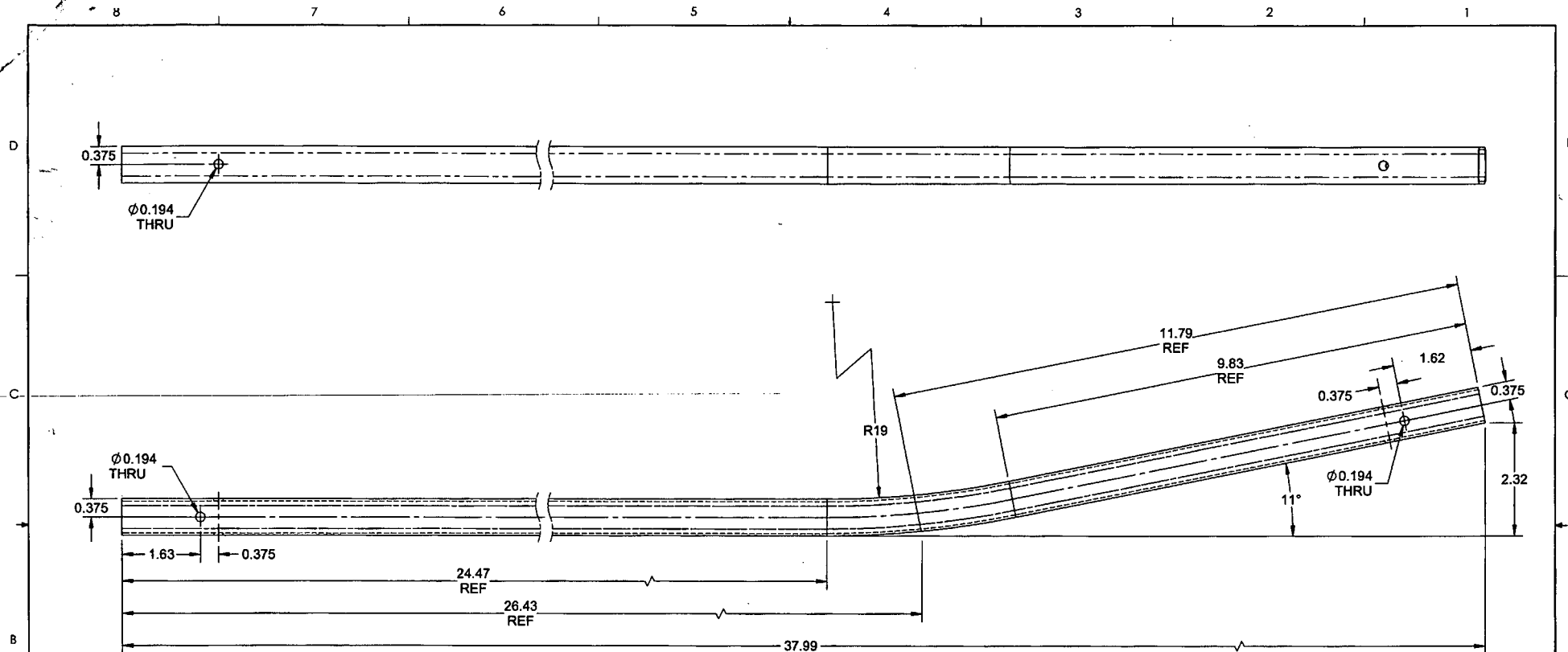


SECTION C-C
SCALE 3X

RELEASED
2017-02-10

APPROVED

DESIGN	VS	DART AEROSPACE LTD	
DRAWN	NO	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. B
MFG. APPR.	DD	D5359	SHEET 2 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	STRUT ASSEMBLY	NTS
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D5359-1 STRUT

NOTES:

- 1) MATERIAL: AISI 304/316 SEAMLESS STAINLESS STEEL SQUARE TUBE, 0.75 X 0.75 X 0.049 WALL
REF DART SPEC M304TS0.750W.049
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 0054.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.40 lbs
- 8) FLAT LENGTH 38.21 REF

RELEASED
2017-02-10

APPROVED

DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	NO		
CHECKED	AJS	DRAWING NO.	REV. B
MFG. APPR.	DD	D5359	SHEET 3 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	STRUT ASSEMBLY	NTS
DATE	16.12.12	COPYRIGHT © 2015 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

